

Amendments to the Specification:

Please replace the paragraph beginning on page 1, line 4, with the following:

--Reference is made to commonly assigned, co-pending U.S. Patent Application Serial Number 10/086,087 _____ by Yang et al., ~~(Docket 83426 filed of even date herewith~~ entitled "DNA Sequencing and Gene Identification".

Please replace the paragraph beginning on page 6, line 30, with the following:

--Large DNA molecules, like all macromolecules, have a random coil configuration under a non-perturbed condition. Many methods are known for stretching DNA molecules from a random coil configuration to a linear state. For example, DNA molecules may be stretched using a mechanical means such as applying a microscopic hydrodynamic force generated by microfluidic flows. These flows can be generated in simple microfluidic devices either via electrophoretic, electro-osmotic, or pressure-driven. When a large DNA molecule in solution passes with an elongational flow associated with acceleration of the fluid from a reservoir into a microfluidic channel, the DNA molecule can be oriented and stretched into linear state for at least a fraction of a second, as more fully described in copending U.S. Patent Application Serial Number 10/086,087 _____ ~~referred to above (Docket 83426).~~--